REMARKS

Claims 1-27 remain pending in the application. Claims 1, 15 and 23 have been rejected, and Claims 2-14, 16-22 and 24-27 have been objected to. No claims have been amended. Applicant respectfully requests favorable reconsideration in view of the following remarks.

I. ALLOWABLE SUBJECT MATTER

The Applicants thank the Examiner for the indication that Claims 2-14, 16-22 and 24-27 would be allowable if rewritten in independent form to incorporate the elements of the base claims and any intervening claims. However, since the Applicants believe that the remaining claims in this application are patentable, the Applicants have not at this time elected to rewrite Claims 2-14, 16-22 and 24-27 in independent form.

II. 35 U.S.C. § 102 REJECTIONS

Claims 1, 15 and 23 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Kakarala et al. (US Published Patent Application No. 2003/0052981 A1). These rejections are overcome for the following exemplary reasons.

A cited prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. MPEP § 2131; *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). Anticipation is only shown where each and every limitation of the claimed invention is found in a single cited prior art reference. MPEP § 2131; *In re Donohue*, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985).

Independent Claim 1 recites the following features: (1) "*a digital image sensor including at least an array of photo-detectors having one or more repeat units there, each said repeat unit including at least one single-color photo-detector capable of detecting a luminance value and a two-color photo-detector capable of detecting first and second chrominance values;*" and (2) "*interpolation logic... being connected to output said detected luminance value without interpolating said first or second chrominance value associated with said detected luminance value.*" The Applicants respectfully submit that Kakarala et al. does not teach (expressly or inherently) these features.

Referring to Kakarala et al., Figures 1 and 2, a digital image sensor 20 is fitted with a color filter array such that each pixel location "senses only one color" (e.g., either red, green or blue). (Kakarala et al., page 3, paragraph 29). The digital image sensor 20 provides raw data containing red, blue and green pixel values to a digital signal processor 40, which applies an adaptive demosaicing algorithm to interpolate red, blue and green pixel values at each pixel location from the raw data. (Kakarala et al., page 3, paragraph 30). Kakarala et al. does not teach a two-color photo-detector for detecting first and second chrominance values, as quoted above from Claim 1. Also, Kakarala et al. fails to teach interpolation logic that outputs a luminance value detected at a single-color photo-detector without interpolating the first and second chrominance values associated with that detected luminance value, as quoted above from Claim 1.

Accordingly, the rejections of Claims 1, 15 and 23 are overcome. For the exemplary reasons set forth above, the Applicants respectfully request that the Examiner withdraw the § 102 rejections of Claims 1, 15 and 23.

III. CONCLUSION

As a result of the foregoing, all Claims in the Application are now believed to be in condition for allowance, and an early allowance of such Claims is respectfully requested.

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number or email address indicated below.

Respectfully submitted,

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